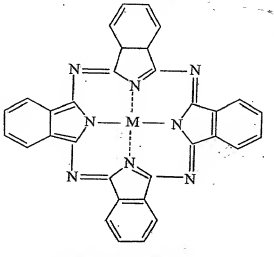
ABSTRACT

An improved process for the preparation of metal phthalocyanines sulphonamides catalyst of formula 1

Structural formula of metal phthalocyanine sulphonamide



Metal phthalocyanine (MPc)

MPc (SO_2 NHR)x
M = Co, Ni, Fe, Mn, Cr, V
X = 1, 2, 3, 4
R = H, alkyl, cycloalkyl,

Formula 1

useful for sweetening of LPG and light petroleum distillates comprising of reacting a metal phthalocyanine with chlorosulphonic acid at a temperature, cooling the mixture by adding 1-7 parts of a chloride reagent, heating the said mixture to obtain the metal phthalocyaine sulphonyl chloride, isolating the said compound by adding the reaction mixture in an ice cold water, reacting the isolated metal phthalocyanine sulphonyl chloride with an amine of general formula H2NR where R is selected from

hydrogen, aryl, alkyl and cycloalkyl in an aqueous or non aqueous medium or a mixture thereof at a temperature in the presence of an acid binding agent to obtain the desired catalyst. The metal phthalocynine used is selected from the group consisting of cobalt, manganese, iron, nickel, chromium and vanadium phthalocyanine, most preferably cobalt phthalocyanine. The chloride reagent used is selected from the group consisting of thionyl chloride, phosphorous trichloride and phosphorous pentachloride. The non-aqueous medium used is selected from the group consisting of chlorobenzene, nitrobenzene, alcohols and N, N-dimethylformamide. The acid binding agent used is selected from the group consisting of sodium bicarbonate, sodium carbonate, sodium hydroxide and tertiary organic bases selected from pyridine, triethyl amine and piperidine. The catalyst prepared is metal phthalocyanine sulphonamide selected from the group consisting of cobalt, manganese, nickel, iron, vanadium phthalocyanine sulphomamide and their N- substituted sulphanamide derivatives, most preferably selected from cobalt phthalocyanine tetra-sulphonamide and cobalt phthalocyanine tetra-N- (4-hydroxy phenyl) sulphonamide.